



Description

The output is a **3D assembled model of a water bottle and its cap** created using Autodesk Fusion 360. The bottle body and cap are designed as **separate components** and assembled using appropriate **joint relationships**, allowing the cap to **rotate smoothly relative to the bottle neck**. This rotational motion simulates the real-world **threaded opening and closing mechanism** of a water bottle.

Outcomes of Using Fusion 360

- Gained hands-on experience in **parametric 3D modelling** of mechanical components
- Learned to create and manage **assemblies using joints and constraints**
- Understood **rotational motion simulation** for functional product design
- Improved skills in **component structuring and design workflow**
- Developed the ability to **visualize real-world product behaviour** before manufacturing